

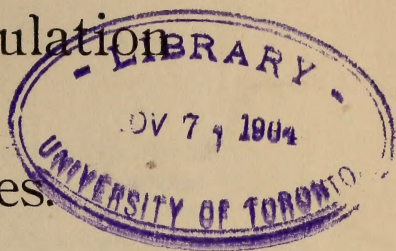
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# Bank Note Circulation

IN THE

## United States.



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A PAPER READ BEFORE THE ARKANSAS BANKERS' ASSOCIATION  
AT THE ANNUAL MEETING IN APRIL, 1900.

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## BANK NOTE CIRCULATION IN THE UNITED STATES.

At the present time there is a great diversity of opinion with reference to the national banking system. While it is admitted that banking conditions have been improved since the adoption of the existing system, there is an ever-increasing body of criticism directed against the system. The phase of the system which attracts the most general attention and criticism is that of note circulation. The most significant feature of the system, in reality, is that concerned with the enormous increase of the deposit currency. The loans and discounts which, in great degree, represent such currency have increased from \$5,500,000<sup>1</sup> in October, 1863, to \$2,500,000,000 in September, 1899. There is no doubt, however, that it is the note circulation which attracts the most general consideration. It is not too much to say that to the general public the note circulation is the central fact, and that the popular consideration in regard to the efficiency of the system turns upon the efficiency of the note circulation.

It must be remembered that the national bank act was the outcome, not of a reasoned course of action, but of a special emergency. Mr. Chase, when he recommended the establishment of a banking system, had in mind the establishment of an organization, the primary object of which would be the creation of a demand for government obligations.<sup>2</sup> As a means to this end he had in mind that the State banks should be induced to secure their circulation by taking up bonds.

1. In this paper only round numbers, unless otherwise specified, are used. The exact figures will be found in the Comptroller's Report for 1899, Vol. I. pp. 661-686.

2. See Finance Report, 1861, pp. 17-19. Also Report for 1862, pp. 18, 20 and 24. In a letter to Hon. John Bigelow, dated October 7, 1862, Chase, speaking of the proposed system, says: "This arrangement will bring to the support of the public credit the whole banking interests of the country." Worden's Life of Chase, p. 506.



The suspension of specie payments, in December, 1861, which was in great degree attributable to the drifting policy of the treasury, led to the passage of the legal tender acts. These acts were not regarded as being of permanent value. Mr. Spaulding, who was responsible for these acts, had, before their enactment, been attracted by the project of a national banking system. He was of the opinion that the legal tender currency would in time be replaced by the national bank notes. At the same time he did not consider that the proposed system of banking would afford any great degree of assistance to the treasury for some years to come.<sup>1</sup>

Throughout the financial history of the United States there has existed an intimate connection between the needs of the government and the establishment of banking systems. The charter, in perpetuity, granted by the Continental Congress to the Bank of North America in 1781, was really a *quid pro quo* for aid rendered Washington's army by some citizens of Philadelphia. It is stated that Hamilton, before he became secretary of the treasury, was asked by Washington what should be done with the terrible debt hanging over the country, and that his advice was, "bank on it." In the charters of the First and Second United States Banks provisions permitting the payment of three-quarters of the capital in government bonds were contained. It was intended thereby to enhance the government credit. The system adopted in 1863-64 differed from those already referred to in that the government debt was not to be a subscription to capital, but a fund to secure circulation. Even this feature was not new since it was copied from the "free banking" system, which, having proved popular in New York, had soon spread to other States as well as to Canada.

It was intended that the profit to the government

1. Report of Comptroller of Currency for 1875, p. 12.

from the system should come both from the enhanced credit of the government bonds and from the taxes levied on the banks.<sup>1</sup> So far as the creation of a demand for bonds was concerned, the legislation was not immediately effective. The returns for January, 1864, showed that there were only \$30,000 of national bank notes in circulation. Thanks to the amending act of 1864, there were in October of this year, \$45,000,000 of bank notes outstanding. By October of 1866 there was a circulation of \$280,000,000. The State banks were adverse to surrendering their State charters and entering the national system. They were of the opinion that if they entered the national system their credit would be so bound up with all the fluctuations of the government credit that it would be totally dependent on it. They were also unwilling to enter the system because of the laxity of administration that had been shown in connection with the bond secured circulation of some of the Western banks.<sup>2</sup>

On July 1, 1864, there were in circulation \$180,000,000 of State bank notes. By July, 1865, the State bank note circulation and the national bank note circulation were about even, \$142,000,000 and \$146,000,000. It was at this juncture that a great change took place. Between July and October of this year the national circulation increased about \$40,000,000. The reason for this is to be found in the legislation of 1865. The advisability of imposing a tax on State bank circulation had been suggested by Chase in his second annual report.<sup>3</sup> A further suggestion to this effect was made by the Comptroller in 1864.<sup>4</sup> In 1865 an act was passed providing for a tax of 10 per cent on all outstanding cir-

1. See in this connection Chase's Reports *ut supra*. See also remarks of Senator Sherman on the Act of 1863. A condensed statement of these will be found in Blaine's Twenty Years of Congress, Vol. I, p. 475.

2. A more detailed summary of these objections will be found in McCulloch's Men and Measures of Half a Century, pp. 168, 169. See also Conant, History of Modern Banks of Issue, p. 262.

3. Conant, p. 363.

4. Report on the Finances, 1864, p. 54.



circulation of State banks.<sup>1</sup> This was to be effective after July 1, 1866. With the imposition of the tax on State bank notes, the circulation of these notes fell, by October, 1867, to \$4,000,000.<sup>2</sup> It was not, then, until 1865-66 that any great demand for government obligations existed. Although the act of 1865 did not go into force for one year, the statement of the government's purpose led to a retirement of the State bank circulation before the act itself was operative.

The national system has been of undoubted advantage to the government on account of the revenue it has paid. Under the act of 1864 the banks were liable to a tax of 1 per cent on circulation, in addition to a tax of one-half of 1 per cent on the average amount of deposits, and a further tax of one-half of 1 per cent on the capital stock in excess of that invested in government bonds. The act of March 3, 1883, removed the taxes on deposits and capital. In the thirty-five years that have passed since the act of 1864, the government has received from the banks taxes averaging \$4,500,000 annually. As will be seen from the following table, an amount aggregating 55 per cent of the total taxes has been obtained from the tax on circulation:

Taxes collected on capital, deposits, and circulation of national banks to June 30, 1899.<sup>3</sup>

Collected on capital up to June 1, 1883.	\$ 7,855,887.74
Deposits .....	60,940,067.16
Circulation, 1864-99 .....	85,304,945.56
	<hr/>
	\$154,100,900.46

1. Act of March 13, 1865. The text of the various acts referred to in this paper will be found in Dunbar's Currency, Finance and Banking. A somewhat loose practice had grown up which permitted towns and corporations to issue evidences of indebtedness which were practically identical with bank notes. An act of 1867 imposed a tax of 10 per cent on these also. See in this connection the Report of the Comptroller of the Currency for 1897, Vol. I, p. 12.

2. There are still, according to the Comptroller's Report for 1899, \$53,108.50 of State Bank notes outstanding. The most of these are to be found in New York State; the remaining portion of the notes will be found in Pennsylvania, New Hampshire, New Jersey, Maryland and Delaware.

3. Report of Comptroller for 1899, Vol. I, p. 369.

The aim in establishing the national system was dual—aid to the government, and improved circulation. The way for the consideration of this latter phase will be cleared by a summarized statement of what the system has done. It has gained for the public the following points.<sup>1</sup>

1. A saving in heavy discounts on bank currency.
2. A saving in rates of interest on loans and discounts.
3. A saving in the rate of exchange.
4. A saving to customers in charges for making collections.

It will be noticed that only one of these points is concerned with circulation.

A detailed consideration of the statistics with reference to the national banks will show how inadequately the less industrial sections of the country are supplied, not only with circulation, but also with banking capital. The New England States, the Eastern States, and the Middle States, with 61 per cent of the population of the country, have 82 per cent of the circulation and 81 per cent of the banking capital embraced in the national system. It may be urged that the lack, in the less industrial sections, is made up for by the fact that there are in these sections a large number of banks operating under State charters. But it must be remembered that the sections which are well supplied with capital and circulation under the national system, are also well supplied with institutions operating under State charters. While it is obvious that the Eastern States, the New England States, and the Middle States do a large amount of business, it is by no means clear that the disparity in regard to capital and circulation indicates that the business done by these sections is greater than that done by the remain-

1. See Report of the Comptroller for 1894, Vol. I, pp. 29-31.



ing portions of the United States by the proportion the figures would indicate. While an index of the general movement of the business transacted through the banks can be obtained from the clearings, it is not possible from this material to say with definiteness what proportion of the business of the country falls to each section. The fact that 73.8 per cent of the clearings of the country are transacted through the clearing houses situated in New York State simply indicates that the figures are swelled to their existing proportions by the large amount of business centralized in New York.

The Southern, Western, and Pacific States have 18 per cent of the capital and 17 per cent of the circulation. The disparity in regard to the distribution of circulation is brought out more clearly by a consideration of the amount of bonds deposited to secure circulation. In the case of a bank with a capital of \$150,000 or less, a minimum bond deposit of one-quarter of the capital is required; when the capital is in excess of this a minimum deposit of \$50,000 is requisite.<sup>1</sup> The total bond deposit at present is \$229,000,000. The minimum bond deposit under the provisions of the law is \$97,000,000. There is thus an excess of \$132,000,000 over the minimum requirement. Of this excess \$114,000,000 are to be found in the New England, Eastern, and Middle States. In the Southern group of States, which comprises thirteen, there are only four—Kentucky, Tennessee, Texas, and Virginia—that have, in each case, an excess of bond deposit, over minimum requirement, amounting to \$1,000,000 or upwards. There is no exact correspondence between capital and excess bonds carried. Alabama, with a capital of \$3,000,000, carries only \$142,000 of excess. Texas, with a capital of \$19,000,000, carries \$1,000,000 of excess. The lowest excess in the South is in Arkansas, where the minimum

1. Section 49, Chapter III, of National Bank Act. See text in Comptroller's Reports.



bond deposit is \$242,500, and the actual bond deposit is \$251,000. The States of the Pacific Slope present similar conditions.

The question arises here, Were the conditions in any way different before the war? The statistics for the period ending in 1860 are incomplete, and allowance must be made for this in the deductions made from them.<sup>1</sup> In 1860 the following data, for the whole country, are afforded. Loans and discounts, \$691,000,000; capital, \$421,000,000; circulation, \$207,000,000. There must, however, be an analysis of the geographical distribution of this material.<sup>2</sup> The banking capital of New England and the Eastern States was \$363,000,000, or 67 per cent of the total capital. The Southern States possessed 24 per cent of the capital.<sup>3</sup> In circulation the New England and the Eastern States possessed 50 per cent of the total, while the South had 37 per cent of the total. Leaving out of consideration the then Western States, in which circulation was on the whole unsafe, it appears that the South was better supplied with circulation in 1860, under the State banking systems, than it is to-day under the national system. The absolute figures are for 1860, \$73,795,862; for 1899, \$21,359,712.50. However, it must be remembered, in this connection, that the only bank notes which had a really general circulation at the time were those of New England and New York. Other bank notes were quoted, in the New York market, at from  $\frac{1}{8}$  to  $1\frac{1}{2}$  per cent discount, while some were quoted at from 5 to 10 per cent dis-

1. For statistical detail concerning banking conditions before the war see the report of the Comptroller for 1876, pp. xcv-cxxi.

2. In the distribution, the arrangement of States followed in the earlier portion of this paper is made use of. In the New England group there are data for all the States. In the Eastern State group there are no returns available for the District of Columbia; this does not affect the total return to any appreciable extent. In the Southern group there are no returns for Texas, Arkansas and, of course, West Virginia. In the Middle State group no returns for Ohio and Minnesota are available. There are no returns for the Western and for the Pacific States.

3. There are manifest errors in the table referred to, in regard to the item of loans and discounts, and the percentages in this particular will not total up exactly.

count.<sup>1</sup> the discount on the bank notes would make them an uncertain and not uniformly desirable medium of exchange. It is not to be assumed that all the notes were in this condition in the South. The excellent banking laws of Louisiana insured for that State in the South what the excellent banking laws of Indiana insured for that State in the middle West. But even if it is assumed that this condition of discount prevailed throughout the South, it will be found that if a deduction is made from their nominal purchasing power of the amount attributable to the discount, the net volume of circulation was more than twice as great in 1860 *than* it is forty years later.

It is well known that both in wholesale and in retail business credit instrumentalities play a very important part. The great expansion of loans and discounts that has taken place means also an extension of the opportunity for the use of deposit currency. But there has been much less expansion in this regard in the South than in other sections of the country. While the loans and discounts of the country in general have increased from \$691,000,000 in 1860, to \$2,500,000,000 in 1899, in the South the increase has been from \$117,000,000 to \$150,000,000.<sup>2</sup> While the loans and discounts of the whole country have increased 262 per cent in the period in question, the loans and discounts in the South have only increased 28 per cent. Unless business has increased only 28 per cent the opportunities for the use of deposit currency have not kept pace with the expansion of business. The contention is advanced that the increased use of credit instruments lessens the demand for circulation. This position, even if valid, has only a very limited application in the existing conditions of the South. A series of investigations carried on by the Comptroller of the

1. See Report of the Comptroller for 1873, p. xiv.

2. See Comptroller's Report for 1899, Vol. I, p. 424, Table No. 55, and also the earlier material already referred to.



currency show that approximately 90 per cent of the wholesale business, and 68 per cent of the retail business, or a general average of 75 per cent of the total business, is carried on through the instrumentality of credit instruments.<sup>1</sup> It is unsafe to base any absolute statement on these data with reference to the relative demand for bank note circulation in 1899 as compared with 1860. Comparative data are lacking. It is only by an indirect method that some idea of the demand for circulation in the South can be obtained. The method that is followed is given simply as a tentative one. The comptroller's investigation in 1896 showed that while, in general, in the business transacted through the national banks, 6.3 per cent of the total volume of business was carried on with paper currency for the South, the proportion is 10.9 per cent, or in other words, the demand for paper currency is, in proportion to the business done, roughly about twice as great in the South as in the country in general.<sup>2</sup> Taking the data contained in the comptroller's investigation of 1892 it will be found that the demand for bank notes was twice as great in the banks outside the reserve cities as in the reserve cities themselves.<sup>3</sup> It is well known that in less highly developed industrial sections the demand for bank notes is much greater, proportionately, than in more highly developed industrial communities, the life of the note being longer in the former than in the latter. The supply of notes in the South was about three times as great in 1860 as it is to-day. There has in the meantime been an increase of business. It would, on the whole, appear to be a conservative estimate that the South demands a circulation at least twice as great as it now possesses.

The first national bank, chartered under the act of

1. See in this connection the summary of the investigations of 1890, 1892 and 1896, in the Comptroller's Report for 1896, pp. 63, 68 and 88.

2. The data upon which this statement is based will be found in the Comptroller's Report for 1896, p. 79, Table 15.

3. Report of the Comptroller for 1892, p. 33.

1863, was organized in Philadelphia on June 30, 1863. The first circulating notes were issued on December 21 of the same year.<sup>1</sup> Under the acts of 1863-64 the banks were allowed to issue circulating notes of as low denominations as \$1.<sup>2</sup> In 1870 the lowest denomination of notes to be issued was fixed at \$5.<sup>3</sup> As has been seen the bank note circulation increased very slowly. From 1864 until the period 1873-74, there was a gradual upward movement. On October 31, 1864, there were in existence 508 banks, with a circulation of \$58,000,000.<sup>4</sup> In October, 1873, 1,976 banks had \$348,000,000 of circulation outstanding. By October of the following year this had increased to a point some \$500,000 in excess of this. Since then the movement has been, on the whole, downward. This was arrested in the period 1879-82. In 1882 the circulation stood at \$360,000,000. Then the downward movement began again. The lowest point was reached in the period 1889-91. In December, 1890, circulation fell to \$123,000,000. Since then there has been a slow upward movement until at present<sup>5</sup> outstanding circulation amounts to \$249,000,000.<sup>6</sup>

The significance of these movements will be more clearly understood when considered in connection with some other data pertaining to the national banking system. For the purposes of comparison the year 1866 may be taken as the beginning of the period, since it was not until this date that the new system was properly under way. On January 1, 1866, the capital stood at \$403,000,000. From that date until 1876 there was a gradual increase. From 1877 to 1880 there was a falling off. Then an upward movement set in until by September, 1892, the capital stood at \$686,000,000, the highest

1. Comptroller's Report for 1873, p. v.

2. Act of 1864, Section 22.

3. Act approved July 12, 1870, Section 3.

4. The figures for the whole period will be found in the Comptroller's Report for 1899, pp. 361, 362, and 345-349.

5. March, 1900.

6. \$213,610,029 of this is based on bonds. The remainder is covered by lawful money deposited to redeem circulation.



point yet reached. Thence there has been a steady downward movement until in September, 1899, it stood at \$605,000,000<sup>1</sup> Although the loans and discounts have been subject to sharp fluctuations they have been, on the whole, characterized by a sharp upward movement. On January 1, 1866, the loans and discounts stood at \$500,000,000. Thence there is an upward movement until 1873. The effect of the crisis of that year was operative until 1879. Thence there is an irregularly upward movement until in May, 1893, \$2,160,000,000 was reached. As a result of the panic of that year there was an irregular fall until 1896. Thence the movement is upward until at present<sup>2</sup> the highest point yet reached, namely, \$2,500,000,000, has been attained.

This material may be put in a still more condensed form. Between 1866 and 1899 the bank note circulation increased 13 per cent, the capital increased 50 per cent, and the loans and discounts 400 per cent. The significance of this is all the greater when it is remembered that the circulation represents the smaller base, where consequently the proportional effect of a slight increase is more readily manifest.

The conclusions arrived at so far may be summarized:

1. While there has been a rapid increase in the volume of business transacted by the banks there has been a barely perceptible increase in the circulation.

2. There is a very uneven distribution of the circulation.

The actions of the legislators show that it was not their intention to have an unequal distribution of circulation. The act of 1864 limited the circulation to \$300,000,000.<sup>3</sup> The act of 1863, the provision in this

1. In the calculations following, the data for September, 1899, are used. The returns of the loans and discounts for March, 1900, are not available.

2. September, 1899.

3. Section 22 of the act.

regard applying also in the act of 1864, stated that one-half of this was to be apportioned according to population, while the remainder was to be apportioned by the secretary of the treasury, according to his discretion, "having due regard to the existing banking capital, resources and business."<sup>1</sup> In 1865 this provision was further amended. Where a bank had a capital exceeding \$3,000,000 it might issue notes to an amount equivalent to 60 per cent of its capital; where the capital exceeded \$1,000,000, but was less than \$3,000,000, circulation to the amount of 75 per cent of the capital might be issued; where the capital was in excess of \$500,000, but not of \$1,000,000, 80 per cent might be issued; and when the capital was less than \$500,000, 90 per cent might be issued.<sup>2</sup> The obvious intention was to furnish to those localities which were poorly supplied with banking capital, a larger proportion of circulation. In 1870 provision was made for an increase of circulation to \$354,000,000.<sup>3</sup> The \$54,000,000 to be added to the circulation were to be distributed to the sections having less than their proportion of circulation under the provisions of the earlier acts. The apportionment was to be based on the census of 1870. At the same time \$25,000,000 of circulation was to be taken from States which had more than their proportion of circulation and awarded to States that had less.<sup>4</sup> In 1874, a bill, vetoed by President Grant, provided for the addition of \$46,000,000 to the bank circulation. This was to be apportioned according to the method already indicated.<sup>5</sup> An act, passed in the same year, provided for the withdrawal of \$55,000,000 from States having an excess of circulation, and the allocation of this to States

1. Section 17 of the act of 1863.

2. 13 Statutes At Large, 498—Act approved March 3, 1865.

3. 13 Statutes At Large, 251—Act approved July 12, 1870.

4. In regard to the operation of this system, see Conant, p. 366, and Reports of the Comptroller for 1872, p. lxxiii; 1873, pp. vii, viii and xxxiii; 1875, p. xxix.

5. For the text of this bill see Dunbar, pp. 295, 296.



which had a deficiency of circulation.<sup>1</sup> Since the passage of the specie resumption act of 1875 there has been no provision with regard to limitation or distribution of circulation.<sup>2</sup>

Banking organizations, like other business organizations, have in mind the obtaining of a profit. The nature of their business is dependent upon the nature of the environment. Under the existing system it must also be borne in mind that the circulation phase is bound up with the fortunes of the public debt.

A bank note circulation should, as a primary requisite, be possessed of stability. This implies convertibility. But granted this, it should also have elasticity. The volume of business varies from season to season. In so far as the transaction of this business is dependent on bank note circulation the circulation should be adapted to the volume of business.

The stability of the bank notes, at present, is beyond peradventure. The element of elasticity is absolutely lacking. The requirement of a bond deposit makes the notes perfectly secure, but at the same time it prevents elasticity. If a sudden demand for notes emerges, bonds are a primary requisite and the banks must purchase these in the market and deposit them with the treasurer before the notes are issued. In time of crisis, when demand is made for discounts, the stringency can be eased by freer discounting. As a usual thing, however, the possibility of freer discounting in time of crisis, as far, at least, as the increased use of circulating notes is concerned, does not amount to much. It is this fact which gives point to the various suggestions that there should be an emergency circulation, subject to various limitations. At present at the very least a period of twenty-five days must elapse from

1. 18 Statutes At Large, 123—Act approved June 20, 1874.

2. 18 Statutes At Large, 296—Act approved January 14, 1875.

the time when the bonds are deposited until the notes are handed over to the banks.<sup>1</sup> During the stringency of 1893, in a few instances, three months elapsed before the circulation applied for was issued. Then again it must be remembered that if a bank takes out circulation it has locked up part of its assets in bonds. It may, it is true, keep the notes in the bank and at the same time obtain the income accruing from the interest paid by the government on its bonds. But if it does this it loses the margin between the amount so obtained and the amount that could be obtained from using the notes in discounting at the current rates, plus the interest received from the government. To keep the notes idle, then, means a loss of profit. Thus the circulation will not be sufficiently adjusted to the changed condition of demand. The bank will be slow to take out circulation; once it is obtained it is to its advantage to keep it out. It is true that circulation may be reduced by a deposit of lawful money for the purpose; but this is limited by the provisions that when a bank so reduces its circulation it shall not within six months from the time it made such deposit take out any increase of circulation, nor shall it reduce circulation at a rate exceeding \$3,000,000 per month.<sup>2</sup>

But there arises another consequence of the bank notes being secured on a bond deposit. When the credit of the government is poor the bonds sell at a discount and at the same time the rate of interest, in proportion to the actual money investment, is high. When the credit of the government improves this is seen in the price of the bonds. As the bonds approximate par the profit to the holder of the bonds lessens. When the bonds go above par the profit is still further lessened. The national banks, being limited to a circulation not in excess of 90 per cent of the par of the bonds, have their

1. Report of the Comptroller for 1899, Vol. I, p. 12.

2. Act of 1882, Section 9.

profit curtailed when the credit of the country is appreciating. There are two forces working in different directions. The bank has the greatest inducement to issue notes when the credit of the government is poor. When the credit of the government is good, and the general tone of business is hopeful, there is much less inducement to the issue of notes. Not only has the credit of the government been improving from general causes, there has also been an upward movement imparted to the credit through the demand of the banks for bonds. As the supply of bonds becomes less the banks are competing not only against each other, but also against all others who may desire to obtain gilt edge securities. Demand, in this regard, is continually tending to preponderate over supply. To-day the debt of the country is less than one-half what it was when the national banking system came into existence. It is at the same time a cardinal principle of American finance that a policy of permanent indebtedness is alien to the institutions of the country. Under normal conditions the base on which circulation may be issued is continually contracting.

Whether a bank will issue circulation, under existing conditions, will depend, in part, on the nature of the business it caters to. There are at present eight national banks which do not issue circulation at all. This arises from the fact that their customers demand deposit currency, not circulation. These banks carry the minimum deposit of bonds required by the law. Without such deposits the banks could not have the advantages of the national system. One of these banks, the Chemical National, has never carried circulation. A consideration of the data presented in the following table, will indicate the strength of these banks:<sup>1</sup>

1. See Comptroller's Report for 1899, Vol. I, p. 365, and also Vol. II. The data related to the reports by the banks to the Comptroller in September, 1899.



Title and Location of Banks.	Capital.	Bonds.	Loans and Discounts.	Individual Deposits.
Chemical National, N. Y. ....	\$ 300,000	\$ 50,000	\$22,048,915.34	\$22,459,722.61
Mechanics National, N. Y. ....	2,000,000	50,000	11,158,045.81	7,941,827.96
Merchants National, N. Y. ....	2,000,000	50,000	14,737,403.35	5,862,485.60
National, Washington, D. C. ....	200,000	50,000	541,902.99	2,112,766.29
Chesterton Nat., Chesterton, Md. ....	60,000	15,000	168,178.47	191,288.32
Rigg's Nat., Washington, D. C. ....	500,000	50,000	3,076,717.69	5,891,115.87
Comm. Exchange Nat., Chicago. ....	1,000,000	50,000	9,588,561.61	9,038,047.95
Fletcher National, Indianapolis. ....	500,000	50,000	2,568,872.17	3,784,876.06
	\$6,650,000	\$365,000	\$63,888,637.43	\$57,282,130.66

Another factor which must be considered in connection with the inducements to the bank to issue circulation, is the current rate of interest. As early as 1872 the Comptroller recommended that national banks, not carrying circulation, might be organized and that, under such conditions, a minimum deposit of \$10,000 in bonds would be sufficient.<sup>1</sup> In 1873 he drew attention to the fact that owing to the small margin of profit obtained by banks in the South and West, there was a lack of inducement to issue circulation.<sup>2</sup> During this earlier period there was not only the effect of the slow appreciation of the government credit, but also the heavy taxes, both State and national, to be borne. In the period from 1875 to 1878 the disinclination of the banks to carry increased circulation in the South and West, was still more marked.<sup>3</sup> The disposition which showed itself so early has been especially manifest in more recent years. Although the Federal taxation has been lessened, this has been more than offset by the appreciation of the government credit. Since 1878 there has been on the whole a steady contraction of the circulation; and this has gone along with the decreasing amount of the public debt and the steady appreciation of the government

1. Comptroller's Report for 1872, p. 74.

2. Comptroller's Report for 1873, p. 16.

3. Comptroller's Report for 1875, p. 20, also Report for 1876, p. 61.

credit.<sup>1</sup> The banks receive circulation to 90 per cent of the par of the bonds deposited. On circulation they are taxed 1 per cent, then in addition they have to pay for cost of redemption, express charges, agents' fees, and sinking fund. All these must be deducted from the profits before the next profit from the circulation can be ascertained. In October, 1899, when 3 per cent government bonds were quoted at 108.6, a bank, by buying \$100,000 of bonds and taking out circulation thereon, and using this circulation in discounting at 6 per cent, would receive 3 per cent on the par of the bonds, plus 6 per cent on \$90,000, less the charges already indicated. This would give a net return of \$7,187.50. Had the amount required to obtain \$100,000 of bonds been used in discounting at 6 per cent the return from this would have amounted to \$6,517.50. There is, therefore, a net gain of \$670 on such an investment, or an additional profit of .677 of 1 per cent, resulting from taking out circulation.<sup>2</sup> As the profit on bonds varies the amount of circulation varies. The following table will show that the average profit on circulation, in the period 1894-96 rose from .967 of 1 per cent to 1.659 per cent. Under these conditions outstanding circulation rose from \$179,000,000 to \$216,000,000.

Table showing average profit on circulation and circulation outstanding:<sup>3</sup>

Date.	Average Profit on Circulation.	Circulation.
October 31, 1894.....	0.967 of 1 per cent.	\$179,401,364.00
October 31, 1895.....	1.107 per cent.	\$190,180,961.00
October 31, 1896.....	1.659 per cent.	\$216,510,014.00

It has already been indicated that in the South and West circulation is kept down much closer to the

1. See in this connection the remarks of the Comptroller in the Report for 1888, pp. 4 and 7.

2. Comptroller's Report for 1899, Vol. I, p. 350, Table No. 16.

3. See Comptroller's Report for 1896, p. 106.

minimum than in the Eastern States. The reason of this is not far to seek. The calculations already given have been based on the assumption that money is worth 6 per cent. But when the rate rises above this there is less inducement to take out circulation. The higher the average rate of discount in a community the less the inducement to take out circulation. In the South the average rate on the very best paper is about 8 per cent.<sup>1</sup> The transaction which gives the banks in Portland, Me., and Buffalo, where the average rate is about 6 per cent, .677 of 1 per cent of additional profit, gives the banks in the South an additional profit of .287 of 1 per cent, or say,  $\frac{1}{4}$  of 1 per cent. When the rate rises to 10 per cent, as it sometimes does, the inducement to take out circulation is still less.

It is clear that while the circulation has been stable it has been inelastic and unequally distributed.

To consider the various amendments to the banking act, which have been suggested, is not necessary to the main purpose of this paper. In addition their number is such that they deserve separate treatment. It may be noticed, however, that in the amendments the question of circulation is recognized as central, since almost every amendment has turned upon this matter. A passing reference may be made to the recent financial act, the act of March 14, 1900, since it would seem, at first blush, that the changes made by it invalidate the positions taken in this paper. It is not necessary in this connection to give a thorough-going criticism of the policy of the act. In brief, the act provides that 2 per cent bonds may be issued to take the place of outstanding issues of threes, fours and fives to the amount of \$839,000,000. On the 2 per cent bonds obtained in exchange for the outstanding bonds circulation may be

1. See calculations contained in an article in the *Political Science Quarterly* for March, 1898, by Mr. R. M. Breckenridge.



taken out to par. The tax on circulation on the notes secured on the 2 per cent bonds is reduced to  $\frac{1}{2}$  of 1 per cent, at the same time the provision which prohibits a bank which has reduced circulation from increasing circulation within six months from such reduction is rescinded. This assumes the continuance of the bonded indebtedness. The existing defects in circulation are inseparable from its connection with government credit. The appreciation of government credit is the depreciation of bank profit. Looked at from this point of view, the recent change is as much a palliative as the other amendments that have been suggested. The government actuary estimated that, under the new system, on a par basis, the banks would on a deposit of \$100,000 of bonds receive an additional profit of \$1,437.50. Before the law became effective there were quotations of 106. This would reduce the profit on circulation to \$1,093, or to 1.09 per cent.<sup>1</sup> It is probable that this will still further continue. While the system will temporarily increase the circulation, it will not ensure that circulation will continuously keep pace with the expansion of business. The American people are committed to a policy of temporary indebtedness; and it is contrary to the canons of American finance to depart from this system, even if the permanence of the national banking system is thereby ensured. Every decrease in the amount of the debt means a decrease in the profit of the bank, in so far as that profit is obtained from circulation. This condition will continue as long as the circulation is tied to the government credit. The security the present system possesses is essential; if the system is to be more highly satisfactory there must also be a flexibility and diffusion of circulation which not even the latest amendment to the National bank act promises to give.

1. See in this connection The New Financial Act, in Forum for April 1900, by Mr. Frank A. Vanderlip, Assistant Secretary of the Treasury.







